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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,974	06/08/2000	David Jau Young Lee	139.132USU1	9891

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EXAMINER	
RYMAN, DANIEL J	
ART UNIT	**PAPER NUMBER**
2665	5

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/589,974	LEE ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 June 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. Figures 1,-3 and 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: on page 10, lines 16 and 22, the acronyms HW and HS should have the phrases for which the acronym stands included in the specification. On page 11, line 23 "router 404 not interfaces" should be "router 404 interfaces". On page 12, line 6 "PTS" should be "BTS". On page 14, line 22 "(PVC) 1" should be "(PVC1)". On page 13, line 22 "BTS 708" should be "BTS 408" to match Fig. 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "the router" in line 10. There is insufficient antecedent basis for this limitation in the claim. For the purposes of prior art rejections, Examiner will interpret "the router" to read "the handoff server".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-7, 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (USPN 6,535,493) in view of Curry et al (USPN 6,359,880).

8. Regarding claims 1 and 12, Lee discloses an internet protocol-based communications system, comprising: a router (ref. 114, 144), a foreign agent, coupled to the router (col. 2, line 51-col. 3, line 4); a Base Transceiver Station (BTS) (access point), coupled to the router, for communicating with a mobile telephone within a transmission area associated with the BTS, wherein the router communicates with the BTS using a proprietary interface (ref. 110, 120) (col. 2, line 51-col. 3, line 4 and col. 4, lines 41-42); a home agent (HA), coupled to the router (col. 2, line 51-col. 3, line 4) where "coupled" is broadly interpreted to include indirect connections, the HA communicating with the router and the foreign agent for registering mobile units and transmitting messages through an internet-protocol network (col. 2, line 51-col. 3, line 4 and col. 5, line 28-col. 6, line 57), wherein messages between the HA and the mobile unit use an internet protocol between the HA and the router and the proprietary interface between the router and the BTS (col. 2, line 51-col. 3, line 4 and col. 5, line 28-col. 6, line 57). Lee does not expressly disclose that the internet protocol-based communications system is an internet protocol-based cellular telephone communications system; however, Lee does leave open the possibility that the mobile units could be a variety of mechanisms (col. 3, lines 40-42 and col. 4, lines 46-67). Curry

teaches, in a public wireless internet gateway system, having an internet protocol-based communications system be an internet protocol-based cellular telephone communications system in order to allow a cheaper alternative to the transport of calls to and from wireless system via telephone carrier networks (col. 1, lines 17-36; col. 2, lines 20-38;col. 3, lines 54-67; and col. 4, lines 2-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the internet protocol-based communications system be an internet protocol-based cellular telephone communications system in order to allow a cheaper alternative to the transport of calls to and from wireless system via telephone carrier networks.

9. Regarding claim 2, referring to claim 1, Lee in view of Curry discloses a second BTS, wherein a handoff between the BTS (ref. 102 or 104) and the second BTS (ref. 132 or 134) is performed through the internet protocol network (Lee: col. 2, line 51-col. 3, line 4 and col. 5, line 28-col. 6, line 57).

10. Regarding claim 3, referring to claim 2, Lee in view of Curry discloses that a hand off is performed between the BTS and the second BTS using asynchronous transfer mode (ATM) communications between the router and the BTS and the router and the second BTS (Lee: col. 2, line 51-col. 3, line 55 and col. 5, line 28-col. 6, line 57 and Curry: col. 2, lines 38-51). Lee in view of Curry does not expressly disclose that the hand off is a soft hand off (SHO). Examiner takes official notice that soft hand offs are very old and well known in the art since soft hand offs reduce the probability that a connection will be dropped during hand off. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the hand off be a soft hand off in order to decrease the probability that a connection will be dropped during hand off.

11. Regarding claim 4, referring to claim 3, Lee in view of Curry discloses that the SHO is performed using ATM between the BTS and the second BTS and the mobile telephone (Lee: col. 2, line 51-col. 3, line 55 and col. 5, line 28-col. 6, line 57 and Curry: col. 2, lines 38-5).

12. Regarding claim 5, referring to claim 1, Lee in view of Curry discloses that the HA directs a message to the mobile telephone using an internet protocol address (Lee: col. 2, line 51-col. 3, line 55 and col. 5, line 28-col. 6, line 57).

13. Regarding claim 6, Lee discloses an internet protocol-based communications system, comprising: a handoff server (router) (ref. 114, 144), a Base Transceiver Station (BTS) (access point), coupled to the handoff server, for communicating with a mobile telephone within a transmission area associated with the BTS, wherein the handoff server communicates with the BTS using a proprietary interface (ref. 110, 120) (col. 2, line 51-col. 3, line 4 and col. 4, lines 41-42); a home agent (HA), coupled to the handoff server (col. 2, line 51-col. 3, line 4) where "coupled" is broadly interpreted to include indirect connections, the HA communicating with the handoff server for transmitting messages through an internet-protocol network (col. 2, line 51-col. 3, line 4 and col. 5, line 28-col. 6, line 57), wherein messages between the HA and the mobile telephone use an internet protocol between the HA and the handoff server and the proprietary interface between the handoff server and the BTS (col. 2, line 51-col. 3, line 4 and col. 5, line 28-col. 6, line 57). Lee does not expressly disclose that the internet protocol-based communications system is an internet protocol-based cellular telephone communications system; however, Lee does leave open the possibility that the mobile units could be a variety of mechanisms (col. 3, lines 40-42 and col. 4, lines 46-67). Curry teaches, in a public wireless internet gateway system, having an internet protocol-based communications system be an

internet protocol-based cellular telephone communications system in order to allow a cheaper alternative to the transport of calls to and from wireless system via telephone carrier networks (col. 1, lines 17-36; col. 2, lines 20-38;col. 3, lines 54-67; and col. 4, lines 2-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the internet protocol-based communications system be an internet protocol-based cellular telephone communications system in order to allow a cheaper alternative to the transport of calls to and from wireless system via telephone carrier networks.

14. Regarding claim 7, referring to claim 6, Lee in view of Curry discloses that the proprietary interface is asynchronous transfer mode (ATM) (Lee: col. 2, line 51-col. 3, line 55 and col. 5, line 28-col. 6, line 57 and Curry: col. 2, lines 38-51) where Lee discloses using IP in the LAN and Curry discloses using ATM to transport IP packets.

15. Regarding claim 9, referring to claim 6, Lee in view of Curry discloses that a handoff of a mobile telephone between the BTS and a second BTS within the cellular telephone communications system is handled through the handoff server (Lee: col. 2, line 51-col. 3, line 55 and col. 5, line 28-col. 6, line 57).

16. Regarding claim 11, referring to claim 6, Lee in view of Curry discloses that a handoff between the BTS and a second BTS is anchored through the first BTS until updates can be made at the HA (Lee: col. 9, line 11-col. 10, line 12).

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (USPN 6,535,493) in view of Curry et al (USPN 6,359,880) as applied to claim 6 above, and further in view of Raychaudhuri et al (USPN 5,684,791).

18. Regarding claim 8, referring to claim 6, Lee in view of Curry does not expressly disclose that the BTS communicates with the mobile telephone using asynchronous transfer mode (ATM). Raychaudhuri teaches, in a wireless system, using ATM to communicate between a mobile unit and a BTS in order to facilitate seamless support of network-based multimedia applications on both fixed and portable terminals (col. 1, lines 16-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to use ATM to communicate between a mobile unit and a BTS in order to facilitate seamless support of network-based multimedia applications on both fixed and portable terminals.

Allowable Subject Matter

19. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not fairly suggest having the telephone communicate directly with a handoff server during a handoff.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bender et al (USPN 6,215,779) see entire document which pertains to a wireless data communication system. Ahopelto et al (USPN 5,970,059) see entire document which pertains to routing packets in a packet radio network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (703)305-6970. The examiner can normally be reached on Mon.-Fri. 7:00-5:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Daniel J. Ryman
Examiner
Art Unit 2665

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